MODIS Technical Team Meeting
June 6, 2002
Building 33, Room E125

Vince Salomonson chaired the meeting. Present were Bruce Ramsay, Wayne Esaias, Steve Kempler, Ed Masuoka, and Shaida Johnston, with Yolanda Harvey taking the notes.

1.0 Upcoming Meetings

- IGARSS 2002, June 24-28, 2002 in Toronto (abstract deadline past)
- MODIS Outreach Workshop on MODIS Vegetation Variables (VI/LAI/FPAR/NPP), July 15-19th 2002, University of Montana, Missoula, MT
- MODIS Science Team Meeting, July 22-24, 2002, Greenbelt Marriott, MD
- Remote Sensing of the Earth's Environment from Terra, a workshop at the International Summer School on Atmospheric and Oceanic Sciences, August 25-30, 2002, L'Aquila Italy
- 34TH COSPAR Scientific Assembly, October 10-19, 2002, in Houston, TX, (abstract deadline past)
- MODIS Outreach Workshop on Land Surface Radiation Products, October 24-25, 2002, Boston

2.0 Meeting Minutes

General Discussion
Salomonson brought in a rough draft of the poster that is to be mounted behind the MODIS display in the lobby of Building 33 and asked for comments and suggestions. He said that he wants to increase the size of the poster to 3'X4', which will allow the addition of a title at the top and thumbnails of MODIS brochure images around the border. Salomonson asked Esaias if he wanted more detail in the Oceans products, and Esaias said yes. Salomonson said that he will look at adding more content to all the products. Conboy (via Yolanda Harvey) further suggested incorporating more color; adding the title "TERRA/AQUAMODIS Instrument Summary;" adding "For more information about MODIS, go to the MODIS website at http://modis.gsfc.nasa.gov/"; and making sure to arrange any images along the border so that they look as best as possible.

Masuoka asked Salomonson if he had heard anything from NASA HQ about the coordination of Terra and Aqua First Light images, and Salomonson replied that he hadn't heard anything yet. We await the definitive instructions from NASA Headquarters. Salomonson said that Harvey has created a good boilerplate for the press release that needed only minor adjustments to clarify that all of Aqua's instruments are focused on the water cycle, not just MODIS. Masuoka asked how the First Light posters were going to be produced, and Salomonson replied that they first wanted to come up with a design, and then think about logistics. Right now, he continued, the general thought is to have a wide swath displayed in the middle of a poster with high resolution chips on side to show that the instrument is working; i.e., it would be an approach much like that used for the Terra "first light" material. However, he said, the more detailed approach will await the first images and how they look.

Salomonson asked Masuoka about the status of data products for the CD and ftp site. Masuoka said he will check with El Saleous about the products. Salomonson said that he wants the letter that will accompany the CD to go out by IGARRS, so he will ask Vermote when he will finish his edits of the cover letter.

Johnston said that she went to the recent Land workshop at the University of Maryland for half of the day. She went only to the presentations, not the technical meetings. The presentations each had less than 30 people attend so that it could be interactive, which was nice. She didn't go to all of the presentations, but she observed an interesting mix of people at the ones she did attend. About half were people from the University, some were from NOAA, some were in forestry, and she saw some representation from NASA HQ.

DAAC

Kempler reported that collection 3 for the year 2000 has just a few granules left, so they are very close to completion. They are continuing to push L1 data to MODAPS for Oceans reprocessing. Kempler asked Masuoka if the reprocessing will start Monday, and Masuoka said that he hasn't received approval for the reprocessing from Salomonson or Johnston. Esaias said that he wants to check the data first, and then provide documentation for Salomonson and Johnston's approval. Once approval is given MODAPS can start the Oceans reprocessing, and that he also wants to clean out the records in the database from the previous reprocessing (Complete Year) and then de-fragment the database to improve database performance before the reprocessing starts. Kempler replied that they will keep pushing Level 1 products to MODAPS until the Oceans reprocessing begins.

Kempler reported that he attended a meeting this week dealing with allocations in the data pools, during which they got a number of priorities worked out. The concern about the data pool has lessened, he continued, so they have the space to grow more than was originally thought. Salomonson asked whether there was a conflict with putting data in for reprocessing if the data pool is for people to draw data off freely, but Kempler said that there isn't a conflict, and Esaias agreed. Kempler said that L1 data will only be around for DAAC to pull it (for security reasons), but that other products will be around longer. Esaias asked if the ratio of storage is 3:1, and Kempler replied that L1 data is 3.6 terabytes over 16 days. If they were to keep L2 reprocessed Oceans in the pool, then it would be retained for about two years. Kempler wants to keep high-level products around for as long as possible. Salomonson mentioned that the Chinese have been having problems acquiring data from the archives, which is why they have so many direct broadcast stations. Masuoka said that network bandwidth to overseas sites is a common problem that impedes the distribution of data to foreign countries like China.

Kempler said that they haven't been doing routine subsetting, but they have the capability. L3 production isn't in their stream, so they subset on distribution out of the archive. Salomonson said that questions have been raised about subsetting L3 data in the data pools, and Masuoka said that the capability to do subsets exists in the EDG. Salomonson asked Kempler if data pools are part of the EDG, and Kempler said no. Kempler said that the data pools have a different interface than the EDG does. Esaias asked if the data pool is hierarchical, and if so, they should be able to put data in and keep track of them easily. He continued that since the data pools are not part of EDG, why isn't it possible to pull out only certain data parameters (such as ozone concentrations) without pulling out a huge file full of unnecessary data? Masuoka replied that the Ocean parameters already exist in separate files and in the data pools it will be possible to ftp only the parameters of interest. Esaias noted that in the case of Atmospheres data, L2 and L3 products are still very big files and are not good for FTP-ing. Kempler said that if there continues to be confusion, he is willing to arrange a one-hour Q&A session. Kempler said that he ran a test on 25 granules, and he was able to pull them out successfully. Kempler continued that the DAAC is making progress.

Salomonson said that while he was at AGU, he heard that people are still concerned about not being able to get data. Johnston said that when she was at the Land outreach workshop, EDC DAAC gave a tutorial of how to order data, which was very useful. She said that she pointed out some unclear areas of the interface, but they were able to explain it very well overall. She also felt that the audience interaction was useful and interesting. She said that there will be two other workshops, one in Montana and one in Boston. Masuoka said that some individual's problem did not stem from a lack of knowledge about how to order data but rather from the need to order a specific subset of the Level 1B product.

SDST

Masuoka reported that SDST is getting the science test system up and that the augmentation to its tape library is being installed today. The SDST is going to run the Atmosphere test, and they still need some PGEs from Land to run that science test. By the time the Atmosphere test is finished, the Land test will be ready to run.

The L1 & L3 Daily Atmosphere PGEs have been reviewed by the Science Team and declared ready to run on Linux processors. Masuoka said that the Ocean L2 and Land L2G products need to be declared ready for Linux processing if the forward processing system, mtvs1, is to have a full 2x with some margin for running Aqua and Terra simultaneously. Esaias said that the Oceans testing is still running, but is doing well. He said that the results should be available by the end of the day or the first thing tomorrow (June 7). Esaias said that he can give Masuoka the assurance that at First Light, if it is necessary, SDST can use Linux on Oceans for Aqua. Masuoka replied that that would be a great help. Johnston asked whether the differences in northern latitudes are okay for PGE 9, and Esaias replied that yes, it was a false alarm, the differences were just being double-checked and the results are fine.

Instrument Status

Salomonson asked Esaias if we still want to do the deep space maneuver? The Aqua project is asking (again) what the position of each of the instruments is regarding the DSM. It is Salomonson's stance is that the MODIS still requires a DSM. Esaias reaffirmed that nothing has changed with regard MODIS from his and the Oceans point-of-view.

Salomonson reported that the Terra formatting-error rate is up to five hundred thousand per day, but there has been no impact on data due to the software fix. Johnson asked whether at some point the hardware is going to fail, and Esaias wondered if the failure would happen gracefully or catastrophically. Salomonson said that he didn't know how it would fail, but it is pretty clear that it will eventually fail. Salomonson said that MCST is continuing to check the MODIS data stream to see if any effects due to the formatter are showing up in the data, and they are looking into the problem. Masuoka asked whether it was possible to switch formatters if the current one fails, and Esaias said yes. Salomonson added that they don't know why on Terra they lost the B-Side.

Salomonson continued that Aqua MODIS is on and in B-Side Standby Mode with the Space View Door open. All three outgas heaters are on and functioning normally. On June 7th they will turn off the heaters and go to Science Mode with the Nadir door closed. MODIS is on B-side because there is much less noise. On June 11th SDSM and the Solar Diffuser door will be tested. On June 12 the first SDSM calibrations will begin. On June 14-15, two sets of six MODIS yaw maneuvers will take place, both with the SD screen closed. On June 25-26, two more sets of six MODIS yaw maneuvers will take place, this time with the SD screen open. Finally, on June 26-27, they will open the Nadir door for First Light.

NOAA

Ramsay reported that the NOAA/NESDIS near real-time MODIS system is processing global Terra MODIS data, and that they are waiting on the communication system scheduled for late fall to be able to transmit the complete data stream to NOAA's facilities at Suitland and Camp Springs. They are able to pull derived products from the current stream, all of which are looking good. Right now they're working on Ocean and Land surface products. He reported that Coast Watch (Kent Hughes) will go operational with MODIS data on June 17 (CO2, wind, color, and SST) and in July they have a cruise set up near Hawaii.

He reported that there have been a number of data drop outs, but they're not sure how crucial they are, and people are checking them out. Depending on the results, it may not be brought to the MODIS Tech Team's notice in the future. Masuoka indicated that the data dropouts are due to EDOS, and they're looking at the problem with respect to end users. Masuoka said that the EOSDIS is receptive to fixing problems for the near real-time data systems.

Ramsay reported that now is a good time to start the discussion with NOAA's National Centers for Environmental Protection (NCEP) with respect to their use of MODIS products in numerical weather prediction models and forecasts, and given the timing, he will query them on how they would like to receive and evaluate the data. Salomonson asked about the Review Board, and Ramsay replied that he will put the issue up on the 19 June monthly meeting of the Satellite Products Services Review Board (SPSRB). The results will be communicated to the MTT. He said that MODIS members will be included in the discussions with the SPSRB, as well as having membership in specific SPSRB Product Oversight Panels.

Masuoka said that he has a web page of software that are used in operations that he will have Paul Haggarty check, or as an alternative, every 4 months he could deliver a package of complete products, but they will be less current. Masuoka said that he will email Ramsay about it. Esaias said that the NOAA/NESDIS near real time MODIS web page has a nice list of products and software versions that we could emulate.

Esaias said that he was questioned about the geolocation of Aqua for near real-time, and that Robert Wolfe would be a good person to contact about that. Esaias will meet with Chris Brown, NOAA/NESDIS, about the wording of caveats for the products to ensure that they are clearly research-quality products.

Ramsay reported that on MODIS LRRS, they have a FY03 proposal pending, and assuming that they receive the requested funding, he wanted to know what the status of source code copyright would be. Salomonson said that everything is clear. Ramsay said that he anticipates the release and use of source-code of simulated VIIRS products. Salomonson said that it is still under discussion by legal council. He suggested that Ramsay look at the site that Pat Coronado runs, specifically to look at Fire products and L1, which are fully implementable. He also suggested looking at the institutional software that can be pulled off and is up to users to make direct broadcast compatible. Salomonson said that there is also a software usage agreement. Masuoka asked if the Rapidfire software was up, and Ramsay replied that it's up and running. He wants to work in collaboration with other teams to develop simulated VIIRS products with source code as well as channels. They would have to work out the issue of scripts with Chris Justice. Esaias asked if Ramsay has plans to release code to the private sector, and Ramsay replied that no, code will only be available for in-house development.

3.0 Action Items

3.1 New Action Items
None.

3.2 Action Items Carried Forward
3.2.1 Technical team to discuss further the issue of predicted ephemeris data and how to improve it.
Status: Open.
Ed Masuoka and Robert Wolfe plan to meet with the Terra Flight Operations Team to see if they can run definitive ephemeris 2-4 times per day. The context for this issue to provide better geolocation information for things like fire front tracking and similar issues.

3.2.2 The procedure for releasing Aqua MODIS products needs to be further refined via Discipline discussions and coordination with the Science Team leader, et al.
Status: Open.

3.2.3 Salomonson to send CD FTP letter to Yolanda Harvey for review and editing.
Status: Closed.